

WHAT IS CLAIMED IS:

1. An audio data search control apparatus comprising:

a pickup capable of moving on a multi-session disk in a radial direction thereof; and

5 a microcomputer for controlling the movement of the pickup, wherein the microcomputer executes:

a first step for judging whether or not a search operation for a last audio data file in an optional session is completed during the search operation in the session;

10 a second step for forcing to move the pickup during a required forcible-movement time length along the radial direction of the disk upon the judgment in the first step that the search operation is completed; and

15 a third step for restarting the search operation in a next session according to a different format after the forcible movement is completed.

2. The audio data search control apparatus according to Claim 1, wherein

20 an optimum forcible-movement time length corresponding to a positional information of the pickup on the disk is obtained, and the pickup is forcibly moved along the radial direction of the disk during the optimum forcible-movement time length in the second step upon the judgment in the first step that the search operation is completed.

25 3. An audio data search control apparatus comprising:

a pickup capable of moving on a multi-session disk in a radial direction thereof; and

a microcomputer for controlling the movement of the pickup, wherein

30 the microcomputer executes:

a first step for judging whether or not a search operation for a last audio data file in an optional session during the search operation in the session;

a second step for jumping the pickup over a required number of jumping tracks along the radial direction of the disk upon the judgment in the first step that the search operation is completed; and

5 a third step for restarting the search operation in a next session according to a different format when the track jump is completed in the second step.

4. The audio data search control apparatus according to Claim 3, wherein

10 an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, and the pickup is jumped over the optimum number of jumping tracks along the radial direction of the disk in the second step upon the judgment in the first step that the search operation
15 is completed.

5. The audio data search control apparatus according to Claim 3, wherein

the pickup is jumped over a required number of jumping tracks along the radial direction of the disk, it is judged
20 whether or not the track jump is successful, and the pick up is forcibly moved during a required forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

25 the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

6. The audio data search control apparatus according to
30 Claim 3, wherein

an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, the pickup is jumped over the optimum number of jumping tracks

along the radial direction of the disk, it is judged whether or not the track jump is successful, and an optimum forcible-movement time length corresponding to a positional information of the pickup on the disk is obtained and the pickup
5 is forcibly moved during the optimum forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

the search operation is restarted in a next session
10 according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

7. The audio data search control apparatus according to Claim 3, wherein

15 the pickup is jumped over a required number of jumping tracks along the radial direction of the disk, it is judged whether or not the track jump is successful, and an optimum forcible-movement time length corresponding to a positional information of the pickup on the disk is obtained and the pickup
20 is forcibly moved during the optimum forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

the search operation is restarted in a next session
25 according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

8. The audio data search control apparatus according to Claim 3, wherein

30 an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, the pickup is jumped over the optimum number of jumping tracks along the radial direction of the disk, it is judged whether

or not the track jump is successful, and the optical pickup is forcibly moved during a required forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment
5 in the first step that the search operation is completed,

the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

10 9. The audio data search control apparatus according to Claim 5, wherein

a retry process of the track jump is executed in the second step when the track jump results in a failure.

10. An audio data search control method for identifying a
15 cue of an audio data recorded on a multi-session disk using a pickup capable of moving on the disk in a radial direction thereof and a microcomputer for controlling the movement of the pickup, wherein

the microcomputer executes:

20 a first step for judging whether or not a search operation for a last audio data file in an optional session is completed during the search operation in the session;

a second step for forcibly moving the pickup during a required forcible-movement time length along the radial
25 direction of the disk upon the judgment in the first step that the search operation is completed; and

a third step for restarting the search operation in a next session according to a different format after the forcible movement is completed.

30 11. The audio data search control method according to Claim 10, wherein

an optimum forcible-movement time length corresponding to a positional information of the pickup on the disk is obtained,

and the pickup is forcibly moved along the radial direction of the disk during the optimum forcible-movement time length in the second step upon the judgment in the first step that the search operation is completed.

5 12. An audio data search control method for identifying a cue of an audio data recorded on a multi-session disk using a pickup capable of moving on the disk in a radial direction thereof and a microcomputer for controlling the movement of the pickup, wherein

10 the microcomputer executes:

a first step for judging whether or not a search operation for a last audio data file in an optional session during the search operation in the session;

15 a second step for jumping the pickup over a required number of jumping tracks along the radial direction of the disk upon the judgment in the first step that the search operation is completed; and

20 a third step for restarting the search operation in a next session according to a different format when the track jump is completed in the second step.

13. The audio data search control method according to Claim 12, wherein

25 an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, and the pickup is jumped over the optimum number of jumping tracks along the radial direction of the disk in the second step upon the judgment in the first step that the search operation is completed.

30 14. The audio data search control method according to Claim 12, wherein

the pickup is jumped over a required number of jumping tracks along the radial direction of the disk, it is judged whether or not the track jump is successful, and the pick up

is forcibly moved during a required forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

5 the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

15. The audio data search control method according to Claim
10 12, wherein

 an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, the pickup is jumped over the optimum number of jumping tracks along the radial direction of the disk, it is judged whether
15 or not the track jump is successful, and an optimum forcible-movement time length corresponding to the positional information of the pickup on the disk is obtained and the pickup is forcibly moved during the optimum forcible-movement time length along the radial direction of the disk when the track
20 jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

 the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in
25 the second step.

16. The audio data search control method according to Claim
12, wherein

 the pickup is jumped over a required number of jumping tracks along the radial direction of the disk, it is judged
30 whether or not the track jump is successful, and an optimum forcible-movement time length corresponding to a positional information of the pickup on the disk is obtained and the pickup is forcibly moved during the optimum forcible-movement time

length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

17. The audio data search control method according to Claim 12, wherein

an optimum number of jumping tracks corresponding to a positional information of the pickup on the disk is obtained, the pickup is jumped over the optimum number of jumping tracks along the radial direction of the disk, it is judged whether or not the track jump is successful, and the optical pickup is forcibly moved during a required forcible-movement time length along the radial direction of the disk when the track jump results in a failure in the second step upon the judgment in the first step that the search operation is completed, and

the search operation is restarted in a next session according to a different format in the third step when the track jump is successful or the forcible movement is completed in the second step.

18. The audio data search control apparatus according to Claim 12, wherein

a retry process of the track jump is executed when the track jump results in a failure in the second step.

19. The recording medium on which a program for the computer of the audio data search control apparatus as recited in any of Claims 1 through 9 to execute the respective steps is recorded.

20. The program for the computer of the audio data search control apparatus as recited in any of Claims 1 through 9 to execute the respective steps.